

# ALAmax™ CR

## Controlled-Release Alpha-Lipoic Acid



Available in 60 tablets and 120 tablets

### Discussion

Alpha-lipoic acid (ALA) is an 8-carbon disulfide water- and fat-soluble compound that is synthesized in small quantities in the liver and other tissues. Oral supplementation readily crosses the blood–brain barrier after it is absorbed in the small intestine, goes into the portal vein, and is distributed via systemic circulation. Once in the tissues, ALA can be found inside and outside the cells, including inside the mitochondria, where it functions naturally as a coenzyme for the oxidation of pyruvate, alpha-ketoglutarate, and branched-chain amino acids.\*

Researchers recently identified lipoic acid’s mechanisms of action related to maintaining metabolic health. It has a direct binding site at the insulin receptor tyrosine kinase domain. ALA appears to modulate 5'-AMP-activated protein kinase and PPAR-regulated genes, to activate PPAR-alpha and PPAR-gamma, and to support the expression of PPAR-gamma mRNA and protein in heart tissue and smooth muscle of the aorta.\*<sup>2</sup>

Controlled-release technology supports the efficacy of ALA in helping to maintain blood sugar already in the normal range. Data from a 12-week clinical study indicate that supplementation with 600 mg of ALA twice daily may support healthy C-peptide levels. C-peptide is used as an indication of insulin sensitivity.\*<sup>3,4</sup>

Alpha-lipoic acid effectively neutralizes a variety of free radicals, including oxygen radicals and ionized metals. This action is particularly beneficial for people who have higher levels of oxidative stress. Alpha-lipoic acid helps to regenerate vitamins C and E, increases tissue levels of glutathione, and helps maintain the proper ratio of reduced to oxidized coenzyme Q10 (CoQ10) in the mitochondria. In addition, ALA may help the body rid itself of heavy metals.\*

### Clinical Applications

- » Provides Fat-Soluble and Water-Soluble Antioxidant Activity\*
- » Coenzyme for Whole-Body Glucose Utilization\*
- » Supports Healthy Intracellular Glutathione Levels\*
- » Supports Regeneration of Vitamins C and E\*
- » Helps Maintain a Balance Between Oxidized and Reduced CoQ10\*

*ALAmax™ CR is a whole-body, multifunctional antioxidant that helps to maintain healthy, well-functioning cells. ALAmax CR is designed to neutralize free radicals. ALAmax CR has the ability to destroy free radicals in both the water- and lipid-based portion of cells, making it the ideal whole-body antioxidant. In addition, ALAmax CR helps the body synthesize glutathione, the body’s own master detoxifier. ALAmax CR also “recharges” other important antioxidants, such as vitamins C and E and CoQ10, allowing them to continue fighting free radicals for extended periods. In addition, biotin supports the function of alpha-lipoic acid in regulating glucose metabolism.\**

Alpha-lipoic acid may help support a healthy endothelial lining. Healthy endothelial-mediated vasodilation is accepted as a surrogate marker for cardiovascular health and can be affected by the synthesis, bioavailability, or action of nitric oxide (NO). Increased oxidative stress appears to play a significant role in neutralizing or inactivating NO. Alpha-lipoic acid’s antioxidant properties, along with its demonstrated safety and potency, qualify it as a prime candidate for evaluating its ability to support healthy endothelial function.\*<sup>5</sup>

The ability of ALA to improve energy metabolism and decrease oxidative stress alludes to its ability to support healthy mitochondrial function with age.\*

Biotin has been added to support sufficient biotin levels to help offset ALA–biotin competition for pyruvate carboxylase and beta-methylcrotonyl-CoA carboxylase in vivo.\*<sup>6</sup>

## ALMax™ CR Supplement Facts

Serving Size: 1 Tablet

	Amount Per Serving	%Daily Value
Biotin	450 mcg	1,500%
Alpha-Lipoic Acid	600 mg	**

\*\* Daily Value not established.

**Other Ingredients:** Hydroxypropyl methylcellulose, hydroxypropyl cellulose, dicalcium phosphate, sodium stearyl fumarate, silica, magnesium stearate, and coating (hydroxypropyl methylcellulose and medium-chain triglycerides).

**DIRECTIONS:** Take one tablet 30 minutes before breakfast and one tablet 30 minutes before dinner, or as directed by your healthcare professional.

Consult your healthcare professional prior to use. Individuals taking medication should discuss potential interactions with their healthcare professional. Do not use if tamper seal is damaged.

**STORAGE:** Keep closed in a cool, dry place out of reach of children.

**FORMULATED TO EXCLUDE:** Wheat, gluten, yeast, corn, soy, animal and dairy products, fish, shellfish, peanuts, tree nuts, egg, sesame, ingredients derived from genetically modified organisms (GMOs), artificial colors, and artificial sweeteners.

## References

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Antioxidant Activity

Blood Sugar Support

Cell-Life Regulation

Liver Support



All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

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